

REPORT DOCUMENTATION PAGE

AFOSR-TR-97

0187

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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE		3. REPORT TYPE AND DATES COVERED FINAL 01 Jan 97 to 30 Jun 97	
4. TITLE AND SUBTITLE STUDENT TRAVEL SUPPORT FOR GORDON RESEARCH CONFERENCE ON MOLECULAR ENERGY TRANSFER				5. FUNDING NUMBERS F49620-97-1-0058 2303/ES 61102F	
6. AUTHOR(S) DR MARSHAL LESTER					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Gordon Research Conferences Inc., P.O. Box 984 Kingston RI 02892-0984				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING MONITORING AGENCY NAME(S) AND ADDRESS(ES) AFOSR/NL 110 Duncan Ave Room B115 Bolling AFB DC 20332-8080 Dr Michael R. Berman				10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION AVAILABILITY STATEMENT Approved for public release; distribution unlimited.				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) The Gordon Research Conference (GRC) on MOLECULAR ENERGY TRANSFER was held in Ventura, California at HOLIDAY INN from 1/5/97 thru 1/10/97. The conference was well-attended with 117 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students.					
14. SUBJECT TERMS				15. NUMBER OF PAGES	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT (U)	18. SECURITY CLASSIFICATION OF THIS PAGE (U)	19. SECURITY CLASSIFICATION OF ABSTRACT (U)	20. LIMITATION OF ABSTRACT (UL)		

**1997 GORDON RESEARCH CONFERENCE
on MOLECULAR ENERGY TRANSFER
FINAL PROGRESS REPORT**

AIR FORCE OFFICE OF SCIENTIFIC RESEARCH

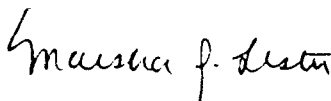
GRANT NO. F49630-97-1-0058

The Gordon Research Conference (GRC) on MOLECULAR ENERGY TRANSFER was held in Ventura, California at HOLIDAY INN from 1/5/97 thru 1/10/97. The Conference was well-attended with 117 participants (attendees list attached). The attendees represented the spectrum of endeavor in this field coming from academia, industry, and government laboratories, both U.S. and foreign scientists, senior researchers, young investigators, and students.

In designing the formal speakers program, emphasis was placed on current unpublished research and discussion of the future target areas in this field. There was a conscious effort to stimulate lively discussion about the key issues in the field today. Time for formal presentations was limited in the interest of group discussions. In order that more scientists could communicate their most recent results, poster presentation time was scheduled. Attached is a copy of the formal schedule and speaker program and the poster program. In addition to these formal interactions, "free time" was scheduled to allow informal discussions. Such discussions are fostering new collaborations and joint efforts in the field.

I want to personally thank you for your support of this Conference. As you know, in the interest of promoting the presentation of unpublished and frontier-breaking research, Gordon Research Conferences does not permit publication of meeting proceedings. If you wish any further details, please feel free to contact me. Thank you.

Sincerely,



MARSHA LESTER

UNIVERSITY OF PENNSYLVANIA

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MOLECULAR ENERGY TRANSFER

January 5 - 10, 1997
Holiday Inn
Ventura, CA

Co-Chairs:

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For more information visit the [Conference Home Page](#)

Sunday, January 5

Energy Transfer in Reactive Encounters

- Session Chair: **Antonio Laganà** (University of Perugia, Italy)
 - **Paul Houston** (Cornell University) - *Snapshots of RRKM*
 - **Uwe Manthe** (Universität Freiburg, Germany) - *Quantum mechanical calculation of rate constants*
 - **David Manolopoulos** (Oxford University, UK) - *The dynamics of some elementary chemical reactions*
-

Monday, January 6

Non-Adiabatic Effects in Reactions and Photodissociation

- Session Chair: **Hanna Reisler** (University of Southern California)
- **Paul Dagdigian** (The Johns Hopkins University) - *Radiative decay, predissociation, and chemical reaction in electronically excited van der Waals complexes of the Boron atom*
- **Robert Gordon** (University of Illinois Chicago) - *Nonadiabatic effects in the spectrum and photodissociation dynamics of HCl*
- **David Yarkony** (The Johns Hopkins University) - *Diabolical conical intersections*

Collisions of Highly Excited Molecules

- Session Chair: **George Flynn** (Columbia University)
- **Hai-Lung Dai** (University of Pennsylvania) - *Collisional energy transfer of highly excited molecules*
- **George Schatz** (Northwestern University) - *Classical and quantum studies of collisional energy transfer involving highly excited polyatomic molecules*

Poster Session I

Tuesday, January 7

Collision Processes in Combustion/Atmospheric/Astrophysical Environments

- Session Chair: **David Crosley** (SRI International)
- **Katharina Kohse-Höinghaus** (Universität Bielefeld, Germany) - *Energy transfer in quantitative combustion diagnostics: Does an engineer need physics?*
- **John Barker** (University of Michigan) - *Experimental and modeling studies of the energy transfer step-size distribution*
- **Eric Herbst** (Ohio State University) - *Chemistry in the cosmos: reactive and inelastic collisions in space*

Intramolecular Vibrational Relaxation

- Session Chair: **F. Fleming Crim** (University of Wisconsin)
 - **Robert Field** (Massachusetts Institute of Technology) - *Intramolecular dynamics in the frequency domain*
 - **Edwin Sibert** (University of Wisconsin) - *The bending dynamics of acetylene*
-

Poster Session II

Wednesday, January 8

Energy Transfer in Condensed Phases

- Session Chair: **Anne Myers** (University of Rochester)
- **Robin Hochstrasser** (University of Pennsylvania) - *Energy and phase relaxation of small molecules in liquids*
- **Craig Martens** (University of California, Irvine) - *Ultrafast dynamics in condensed phase systems*
- **Michael Fayer** (Stanford University) - *Vibrational echo studies of liquids, glasses, and proteins*

Collisions of State-Selected or Aligned Molecules

- Session Chair: **Curt Wittig** (University of Southern California)
 - **Brian Orr** (Macquarie University, Australia) - *Collision-induced rovibrational energy transfer in acetylene: such a small molecule, but so complicated!*
 - **Steven Leone** (NIST and University of Colorado) - *Alignment effects in atomic and molecular energy transfer*
-

Poster Session III

Thursday, January 9

Energy Transfer in Clusters

- Session Chair: **Carl Lineberger** (University of Colorado)
- **Udo Buck** (Max-Planck-Institut für Strömungsforschung, Göttingen) - *Single, multiple and collective excitations of clusters in low energy He collisions*
- **Roger Miller** (University of North Carolina) - *State-to-state vibrational dynamics in clusters and at surfaces*
- **Birgitta Whaley** (University of California, Berkeley) - *Dopant spectroscopy in quantum clusters*

Inelastic Collision Dynamics and Reactions

- Session Chair: **Sally Chapman** (Barnard College)
- **Ian Smith** (Cornell University) - *Vibrational energy transfer in the presence of strong attractive forces*
- **Hans-Joachim Werner** (Universität Stuttgart, Germany) - *Spin-orbit effects in inelastic and reactive collisions*

Poster Session IV
